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Docket No.: ST02010USU (246-US-U11)

### **REMARKS**

Claims 1-24 are pending in this application and stand rejected. Applicant has not amended any claims and is traversing the 35 U.S.C. §112, first paragraph, second paragraph, and the 35 U.S.C. §103(a) rejections raised by the Examiner. The Applicant believes that the present patent application is in condition for allowance. Applicant believes that no new matter has been added by this response.

#### **Response to the 35 U.S.C. §112 Rejections**

##### **First Paragraph Rejections**

The Examiner rejected claims 1-24 under 35 U.S.C. §112, First Paragraph, as the disclosure not being enabled. Specifically, the Examiner cited independent claims 1, 9 and 17, that recite "a processor that identifies a CW jamming signal by employing a predetermined fixed code for a PRN code" is not supported, (*see* Non-Final Office Action of May 27, 2008, page 2). The Examiner stated that "the use of PRN codes by the processor is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure", (*Id.*).

Applicant would like to direct the Examiner's attention to, for example, paragraph 79, page 13, of the specification. The specification at paragraph 79, page 13 describes and teaches an example embodiment of the crosscorrelator being placed in a mode where the crosscorrelator employs all ones for a fixed PRN code. Further, figure 2 of the specification shows all ones being used in the correlator to track the jamming signal. Therefore, the use of a predetermined code for the PRN code in the crosscorrelator and an

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example embodiment of its use in the crosscorrelator is described and taught in the specification and in the figures.

Applicant explains in the specification that the crosscorrelator is in a mode with a code of all ones in place of the PRN code in order to identify jamming signals. In claim 1, Applicant claims a "crosscorrelator that is in a mode to identify carrier wave jamming signals and employs a fixed predetermined code for a pseudo random number (PRN) code." Applicant believes that the Examiner believes the received signal has been encoded with all ones, which is not the case. The crosscorrelator is correlating the received signal with a code in the crosscorrelator of all ones. The correlation is explained and taught in the specification. See specification, paragraphs [079-084] and FIG. 1, 2 & 3.

The Examiner stated that no information was provided as to why replace the well known anti-jamming and correlation properties of a pseudorandom code to track the CW jamming signal. The answer is right in the Examiner's questions, to track the CW jamming signal. Once identified and tracked, it can be removed and the remaining signals more accurately correlated. The well known anti-jamming and correlation properties of the desired signals are pointless if a carrier wave jamming signal is interfering with their reception.

Further, the encoding of any data in the carrier wave is not carried about, what is known is that a carrier wave signal is interfering or jamming the desired signals. Thus, identification and removal of the carrier wave jamming signal is desirable so that the so called well known anti-jamming (more properly called anti-interference) and correlation properties of pseudorandom (PRN) codes can be exploited by the receiver.

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In summary, it is the crosscorrelator that has a code of all ones used in place of a PRN code. The PRN codes are predetermined codes that are assigned to transmitters located in such things as GPS satellites. Thus, Applicant's claim limitations in claims 1-24 are supported and enabled by the specification and drawings and the Applicant asks that this rejection be withdrawn.

### Second Paragraph Rejections

The Examiner rejected claims 1, 9 and 17 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner stated that "employs a fixed predetermined code for a pseudorandom number (PRN) code in line 2." The Examiner is not reading the complete element of the claim 1, which recites; "a signal processor that identify a carrier wave jamming signal with the crosscorrelator that is in a mode to identify carrier wave jamming signals and employs a fixed predetermined code for a pseudo random number (PRN) code." Hence, Applicant is claiming crosscorrelator that...employs a fixed predetermined code *for* a pseudo random number (PRN) code". Thus, a fixed predetermined code is used in the crosscorrelator rather than a PRN code. The predetermine code enables the crosscorrelator to identify carrier wave jamming signals.

Therefore, the specification and claims are consistent and enabled by the teaching that a predetermined code is used by the crosscorrelator when the crosscorrelator is in a mode to identify carrier waves. Applicant asks that this rejection be withdrawn by the Examiner.

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**Response to the 35 U.S.C. §103(a) Rejections**

The Examiner rejected claims 1, 5-6, 9, 13-14, 17, and 22 under 35 U.S.C. §103(a) as being unpatentable over Norman et al. (US 6,282,231) in view of Rodal (US 5,650,785). The Examiner states that the Norman et al. reference "does not specifically teach ... [a] signal processor that identifies a carrier wave jamming signal with the crosscorrelator that is in a mode to identify carrier wave jamming signals and employs a fixed predetermined code for a pseudo random number (PRN) code", (Non-final Office Action dated May 27, 2008, page 5, paragraph 5).

The Examiner then goes on to state that; "Rodal discloses...a low power GPS receiver where a correlation system (#22, Fig. 1) correlated the received signal with a sequence of bits provided by bit source (#32, Fig. 1). Optionally, the bit source 32 may provide a substitute bit stream of all 1's, a random sequence of 0's and 1's, a pseudorandom sequence of 0's and 1's, or a fixed sequence of 0's and 1's (Col 5, Lines 46-67)." But, Col 5, Lines 46-67 of the Rodal patent actually states:

"FIG 2c illustrates an example of a 20 bit section of the quantized IF signal bit stream with no on/off modulation, a 20 bit section of the replica signal bit stream, and a 20 bit section of the input to the correlator system 22 including 10 bits from the quantized IF signal bit stream during the on time duration followed by 10 bits from the bit source 32 during the off time duration. The quantized IF with no modulation and the replica are shown as 100% correlated. The modulated quantized IF and the replica signal are shown as 100% correlated during the on time duration. 00% correlated during the off time duration. And 50% correlated for the entire on/off cycle. Typically, noise in the IF signal would prevent 100% correlation even with no on/off modulation. In the GPS receiver 10, a correlation in the range of 3% to 16% indicates the minimum signal strength for a valid location fix. In the FIGS. 2a, 2b, and

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FIG. 2c, the substitute bit stream from the bit source 32 may provide a substitute bit stream of all 1's, a random sequence of 0's and 1's, a pseudorandom sequence of 0's and 1's, or a fixed sequence of 0's and 1's."

It is stated that the substitute bit stream can be 1's, 0's or pseudorandom sequence of 0's and 1's. Nowhere in the Rodal patent does it teach or describe using a predetermined code of all ones for a PRN code in the correlator. The Rodal reference is teaching changing the stream of data that is processed by the correlator, rather than the code that is being correlated with the stream.

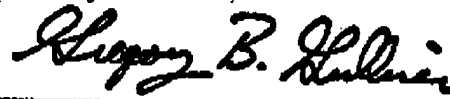
Therefore, independent claims 1, 5-6, 9, 13-14, 17, and 22 are in condition for allowance along with the claims that depend from the allowable claims, for at least the reasons presented above.

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**Conclusion**

In view of the foregoing discussion, Applicant respectfully submits that the claims 1-24 as presented are in a condition for allowance, for which action is earnestly solicited.

Respectfully submitted,

By   
Attorney for Applicant

Gregory B. Gulliver, Reg. 44,138

Phone: (847) 282-3551

Fax: (847) 574-8035

The Eclipse Group  
10605 Balboa Blvd., Suite 300  
Granada Hills, CA 91344